

**Notice of Allowability**

Application No.

10/612,840

Examiner

Lawrence B. Williams

Applicant(s)

MOON ET AL.

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03 July 2003.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☒ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Hanna on 16 November 2006.

The application has been amended as follows:

- a.) On page 2, in paragraph [0004], replace the phrase, "that uses using" with "that uses".
- b.) On page 4, in paragraph [0010], line 3, replace the word, "signalis" with "signal is".
- c.) On page 8, paragraph [0032], line 2, replace the phrase "a receiver 100" with "a receiver 110".
- d.) On page 8, paragraph [0032], line 4, replace the phrase "comma detector 100" with "a comma detector 192".
- e.) On page 13, paragraph [0068], lines 3-4 replace the sentence " The following Table I provides a truth table of how the data edge bits." with "The following Table I provides a truth table of the data edge bits."

### **TERMINAL DISCLAIMER**

2. The terminal disclaimer filed on 16 November 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US

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Patent 6,859,107 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### **DRAWINGS**

3. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The instant application discloses a method and receiver apparatus for receiving data. The closest prior art of record is co-owned US Patent 6,859,107 B1. A search of prior art records has failed to teach or suggest alone or in combination:

“a method of receiving data comprising the acts of: generating a data sampling clock signal comparing a received clock signal to the data sampling clock signal using the data sampling clock signal to sample a data signal into sampled data representing a first zone, a second zone, and a third zone of the data signal; determining which zone of the sampled data has a transition of the data signal indicating a direction of change for the data sampling clock signal if the first zone or the third zone has the transition” as disclosed in claim 1.

“a receiver apparatus comprising a phase locked loop circuit including a voltage controlled oscillator used to generate a data sampling clock signal; a data sampler to receive the data sampling clock signal, to sample a data signal using the data sampling clock signal, wherein the frequency of the data sampling clock signal is three times greater than the data signal frequency, and to output sampled data representing a first zone, a second zone, and a third zone of the data signal; a phase detector to examine the sampled data, to determine which zone of the sampled data has a transition of the data signal, and to output a phase detector signal indicating a direction of change for the data sampling clock signal if the first zone or the third zone has the transition; and a frequency comparator that compares the frequencies of the data sampling clock produced by the voltage controlled oscillator and a reference clock signal” as disclosed in claim 10.

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“a method of controlling a receiver to receive data comprising the steps of: generating a data sampling clock signal; sampling a data signal using the data sampling clock signal, wherein the frequency of the data sampling clock signal is three times greater than the data signal frequency, and outputting sampled data representing a first zone, a second zone, and a third zone of the data signal; detecting the sampled data, to determine which zone of the sampled data has a transition of the data signal, and to output a phase detector signal indicating a direction of change for the data sampling clock signal if the first zone or the third zone has the transition; and comparing the frequencies of the data sampling clock and a reference clock signal” as disclosed in claim 20.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

## CONCLUSION

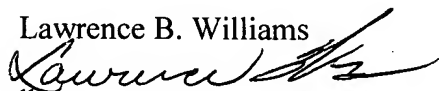
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams



lbw

November 20, 2006



EMMANUEL BAYARD  
PRIMARY EXAMINER